Washington Law Review

Volume 43
Number 1 *North Pacific Fisheries Symposium*

10-1-1967

New Uses of International Law in the North Pacific

Douglas M. Johnston

NEW USES OF INTERNATIONAL LAW IN THE NORTH PACIFIC

DOUGLAS M. JOHNSTON*

INTRODUCTION

For readers of this symposium it is not necessary to document the increasing concern that is being expressed throughout the world over the widening disparity between population and food supplies. Although rapidly innovative food technology is a familiar feature of high-income, industrialized societies, the international economy as a whole is so imbalanced in natural resource allocation, productivity, and distribution that apparently relatively little can be done to alleviate food shortages in the more populous and less developed areas of the world. Yet fish, a highly concentrated protein source found in abundance throughout the world, constitutes a priceless resource for protein-hungry populations, and fishing can provide an occupation for many and generate income efficiently in underdeveloped economies.[1] In this view, the "have not" perspective, marine fisheries provide a challenge to those charged with responsibility for the poor and hungry.[2]

---

* M.A., 1952, LL.B., 1955, St. Andrews University; M.C.L., 1958, McGill University; LL.M., 1959, J.S.D., 1962, Yale University; Research Associate, Harvard Law School.

[1] Although the size of the natural resource base is not now believed, among Western economists, to be a necessarily crucial factor in determining the *rate* of economic growth, the existence of valuable fishery resources close to the coast of a developing country suggests an obvious *form* of economic growth. *See* H. BARNETT & C. MORSE, SCARCITY AND GROWTH: THE ECONOMICS OF NATURAL RESOURCE AVAILABILITY (1963) and C. BOTTEMANNE, PRINCIPLES OF FISHERY DEVELOPMENT (1959). Many economists now regard the fishing industry of poor countries as a good choice for development, since it tends to stimulate the growth of many subsidiary industries, such as building and repairing ships, fishing gear manufacture, ice plants, cold storage, and transportation. Compared with other natural resource and extractive industries, fishing can provide employment and income at a fairly low level of investment cost. In the jargon, the fishing industry rates high as a potential generator of overall economic "take-off." But the lack of a refrigerated transportation system in most developing countries limits the potential domestic market for fresh fish to local coastal or near-coastal areas. To supply larger areas considerable investment has to be made in fish preservation technology, and it has been suggested that some developing countries use their capital and fishing resources more efficiently in earning foreign exchange with which to stimulate economic growth. A profitable export industry might be developed by concentrating on the packaging of luxury sea foods or the large-scale production of fish meal.
Gittins, *What Role Is There for Sea Fisheries in Developing Countries?*, 5 FISHING NEWS INT'L, No. 8, at 27-28 (1966).

[2] On various aspects of fish consumption, the economic role of fisheries, and the world population-resource problem, see D. JOHNSTON, THE INTERNATIONAL LAW OF FISHERIES 21-42, 131-40 (1965) [hereinafter cited as JOHNSTON].

Estimates of the potential food resources of the oceans vary, and all are subject to correction by unforeseen developments in marine engineering and food technology.[3] Even within the present limits of technology a distinction has to be maintained between the physically attainable and the economically available. But at least it seems to be generally agreed that "the role of the sea in feeding the world's increasing population will be ever more important."[4] One important effect of this increase in the capacity and necessity for rapid fishery development in many waters has been the aggravation of existing problems of allocating authority over the oceans of the world.

At the same time, the more developed countries of the Northern Hemisphere have reached a level of such destructive efficiency in exploiting the well-known fisheries of Europe, North America and the Northwest Pacific, that their governments have been induced to participate in a growing number of national and international conservation schemes,[5] and their fleets have been forced by falling yields and rising operating costs to turn increasingly to more distant and less familiar waters.[6] In this view, the "have" perspective, the interaction of various fishing fleets exploiting the same resource with an expanding technology, creates a more complex set of problems, aggravated by a tangled history of international disputes over fishing rights and conflicting views on conservation needs.[7]

---

[3] The following statement appears in F. CHRISTY & A. SCOTT, THE COMMON WEALTH IN OCEAN FISHERIES 72-73 (1965) [hereinafter cited as CHRISTY & SCOTT]:

> The estimates of the oceans' future productivity range widely from about twice the present level of output to a billion metric tons or more. The conservative estimate, which is more an estimate of supply than of ultimate productivity, is based upon current average yields of fish for which there is an established demand. It makes no allowance for the development of techniques that would raise maximum sustainable yields, nor for the development of demands for different species. The liberal estimate, on the other hand, is based on physical and chemical rather than economic factors. The limiting factors are the production of carbon and the feed efficiencies of the various levels of animal life, up to those of the second-stage carnivores. It is interesting to note under this theory that ultimate productivity might be 10 million metric tons if it referred to first-stage carnivores, and 100 billion tons if it referred to herbivorous zooplankton. Thus it can be seen that the total potential output of the oceans can be estimated at almost any level, depending upon the various assumptions about kinds of product and stages of technology.

[4] Jackson, *FAO Fisheries: Next Big Step*, 5 FISHING NEWS INT'L, No. 2, at 270 (1966). Until 1964 Mr. Jackson was Executive Director of the International North Pacific Fisheries Commission. He is now Assistant Director-General, Fisheries Dep't, FAO.

[5] For a recent review of international schemes, see JOHNSTON 253-82, 358-411.

[6] *E.g.*, the waters off Greenland, the waters off the Atlantic coast of Africa (both north and south of the equator), and the Southeastern Pacific.

[7] This oversimplified distinction between "have" and "have not" perspectives, turning chiefly on a country's capital base and technological capacity, should be com-

Since all marine fisheries are either shared or shareable and constitute a renewable resource, broad policy problems of fishery use, both by "have" and "have not" fishing states, always have an international aspect and involve considerations of both development and conservation.[8] In few areas of international law is the challenge to our reason and imagination so acute; and seldom do jurists so obviously require the services of the natural sciences. Yet fishery science, now engaging a small but growing number of specialists from biology and related disciplines, is still unable to provide an adequate factual basis for the sophisticated articulation of truly rational fishery policies. It may be many decades before sufficient reliable data has been gathered through scientific investigation of the world's marine resources to permit the formulation of general behavioral models for all marketable species in all commercially exploitable areas. On the other hand, the dynamics of particular fish populations have become fairly familiar over the years in certain closely studied areas, facilitating rough calculations of the effects of fishing on a resource. But even in highly developed fisheries where substantial exploitation has been conducted under scientific scrutiny, those hypotheses which have won critical acceptance from biologists and adoption by administrators usually rest on untested or untestable assumptions and minimal data regarding

---

pared with a distinction made in CHRISTY & SCOTT at 86:

> There appear to be two views of the fishery resource that are currently prevalent. One is the long-range view that ignores the economic elements of supply and demand and looks upon the ocean as a vast reservoir of undifferentiated protein material. Those who hold this view tend to bemoan the size of the present catch and advocate large investments in research to facilitate greater output from this "underutilized" resource. Because they see great potential output that can be shared by all they do not regard the problems of competition and international conflict as being of very great significance for the future.
>
> The other view, and the one we share, is that the fishery resource is not undifferentiated but is a heterogeneous resource varying widely in size, in location and depth, in density of population, and ease of capture. No single species is inexhaustible nor is it free from the possibility of depletion. The economic forces that dictate the intensity of fishing effort are concentrated on single species or groups of species, and it is here that competition induces conflict and international tension.

[8] Since claims to fishery authority frequently conceal or confuse considerations of development and conservation, it is important to maintain the distinction in order to clarify the values involved and to recommend policies. Elsewhere the writer has defined problems of development, or exploitation, as those referring to "the positive and actual enjoyment of a physical resource, which is the object of production, exchange, distribution, and consumption in the economic system," and problems of conservation as those referring to the controlled, restricted or postponed enjoyment, and the consequent perpetuation, of a renewable physical resource which is regarded as a participant, along with capital, labor, and enterprise factors, in a social process of continuously productive interactions. JOHNSTON 3-4. The term "conservation" is often given a less restrictive connotation. When considerations of "exploitation" and "conservation" are both highly relevant, as in the legal context of fishery policy or authority, the all-embracing term "fishery use" might be adopted.

the complex relationships between biotic and abiotic factors in the shifting sea.[9] Moreover, even the most rational program of conservation, inspired by sophisticated scientific studies, remains vulnerable to the different approach of economists;[10] and even with a theoretical reconciliation between these disciplines, the management of human responses is possible only through the practice of political and diplomatic arts.

To add to the difficulties of international fishery use, the development of the classical international law of the sea was almost entirely irrelevant to the modern objective of a fully rational use of the sea. Down the ages myth and romance have attached to the sea, feeding minds and imaginations in many ways. In classical statecraft the sea

[9] The International Biological Programme, [hereinafter cited as IBP] established in 1963 by the International Council of Scientific Unions, [hereinafter cited as ICSU] has laid considerable emphasis on the need for ecological studies: "Although the simplest way to study resources is to carry out investigations on the resources themselves, it is also of great importance to make fundamental studies of the processes in the production of these resources." IBP NEWS, No. 2, at 5 (1965). The following appears *id.* at 58:

> Success in forecasting and regulating fisheries will depend on an... improvement of our understanding of the basic ecological mechanisms which control the abundant distribution and productivity of marine organisms of all kinds, throughout the trophic chain in the sea.... The programme should form a sufficiently representative time-series for the elucidation of general principles, and it is essential that long-term variation shall be studied as this is a major source of difficulty in planning the efficient utilization of marine resources in many parts of the world.... The great weight of marine biology is already directed towards the kind of objective which the sub-committee commends. The main task of the International Biological Programme, therefore, will be to seek ways of assisting and developing existing activities... the primary requirement for further development is a great increase of the scientific effort in marine ecology. A doubling of manpower, equipment and facilities within the next five years is considered to be the minimum rate of growth if there is to be even modest progress towards the objectives of the International Biological Programme.

[10] For a recent argument in favor of the economist's objective of maximum net economic revenue, see CHRISTY & SCOTT 6-16 *passim*. For a brief discussion of conservation objectives, see JOHNSTON 49-55.

Economists have become interested in trying to analyze the effects of fishing at varying levels of intensity. The results of their analyses often seem to depend on the "assumptions of equilibrium" incorporated in their theoretical models. One school of economists holds that a species or stock cannot be extinguished because it costs too much to catch the last remaining individuals. With increased intensity of fishing, it is argued, the density of the stock decreases and the cost of catching the fish increases. And, with rising prices, demand falls, if it is reasonably elastic, so as to relieve pressure on the stock and the processes of regeneration. Other economists point out that technological innovation can reduce price levels and induce increased consumption and production. With increases in population and income levels, and with changes in consumer preferences due to improvements in the preservation and preparation of fishery products, it may become economical to fish lower densities of a stock. Reproductive capacity, it is concluded, can conceivably be reduced to zero if demand increases along with technological capability. *See* CHRISTY & SCOTT 82-84. In using theoretical models, it should be remembered that fish is a heterogeneous product; demand is not for fish, as such, but for specific kinds of fish and fish products. *Id.* at 74.

was a preserve of no particular interest. This changed when modern nation-states reached out to secure their shores from military encroachments. By then the juridical device of impressing a territorial imprint upon a narrow fringe of coastal waters, to symbolize the seaward extension of land authority, was regarded as the most logical method of explaining those customary and commonly expedient exclusive state practices which had evolved along with the classical doctrine of freedom of the seas. Much of this historical legacy of duality remains.[11] When a fishery dispute arises today, it is still common for the competing claim and counterclaim to be cast in terms which refer specifically to the spatial bifurcation of the sea and the subsumption of traditional rights according to the status of the area, although these "rights of status" clearly fail to meet the fishery needs and opportunities of the 20th century. The basic doctrine of freedom of the seas, which evolved in an age when fishery technology was extremely primitive, was partly based on the prescientific belief in the inexhaustibility of the fish in the sea. The basic counterdoctrine of the territorial sea, also of preindustrial origin, created the modern absurdity of a man-made dichotomy in the coastal waters where fish tend to congregate and where fishing tends to be most profitable at a modest level of exploitation. Because of this dichotomy and the rigidity of doctrine—assuring complete permissiveness, in one, and absolute exclusiveness, in the other—classical international law provided an unsuitable framework for the postulation of rational concepts of fishery authority. Accordingly, for those concerned with harnessing law to facilitate the most rational use of the oceans for the common benefit of mankind, no embarrassment need be felt in seeking flexibility at the expense of continuity with the past.

I. The Process of Fishery Authority

A famous effort was made to codify the international law of the sea at Geneva in 1958. From the formal diplomatic point of view, the code dealing with fishery authority was the most difficult to consummate.[12]

[11] The trends in claims to "unshared exploitation authority" and "shared exploitation authority" through legal doctrine and state practice are traced by the writer elsewhere: Johnston 157-76, 303-17. On the need to reformulate the international law of the sea in response to technological advances, see Johnston, *Law, Technology and the Sea,* 55 Calif. L. Rev. 449 (1967) and Burke, Ocean Sciences, Technology and the Future International Law of the Sea, Jan. 1966. *See also* note 15, *infra.*

[12] The deposit of ratification by the Netherlands on Feb. 18, 1966 brought into force on March 20, 1966 the Convention on Fishing and Conservation of the Living Resources of the High Seas, U.N. Doc. No. A/CONF.13/L.54 (1958). The other three substantive conventions signed at the United Nations Conference on the Law of the

From a modern juridical point of view, however, the reluctance of most governments to ratify the Convention on Fishing and Conservation of the Living Resources of the High Seas[13] may be regarded as sufficient justification for reconsidering the evolving decision-making processes affecting solutions to the problems arising out of the exploitation and conservation of the world's fishery resources.

In its new phase of development the international law of fisheries will be shaped primarily by three types of participants in the process of authoritative decision-making:[14] diplomatic, managerial, and arbitral. Each of these types of decision-makers might be called upon to play a role in the formulation of international fishery policy on three different levels: world communal, regional and subregional. The system of international fishery authority need not be regarded as "vertical," corresponding with national models of authority. In one situation, the failure to resolve a fishery dispute by diplomatic means at the regional level might provide the way for a managerial solution at the subregional level; in another situation, the inability of an arbitral tribunal at the world community level to come to the heart of a conflict of fishery interests through the application of world community prescriptions might reflect the need for a re-evaluation of political, economic and social factors by diplomats of the region where the conflict arose. Perhaps in most situations problems of fishery authority at the regional and subregional levels will not be amenable to solution by the provision or application of new prescriptions by any kind of decision-

Seas at Geneva in 1958 came into force earlier: the Convention on the High Seas on Sept. 30, 1962, U.N. Doc. No. A/CONF.13/L.53 (1958); the Convention on the Continental Shelf on June 10, 1964, U.N. Doc. No. A/CONF.13/L.55 (1958); the Convention on the Territorial Sea and the Continguous Zone on Sept. 10, 1964, U.N. Doc. No. A/CONF.13/L.52 (1958) [hereinafter these conventions will be cited by name only].

[13] On the effective date of this convention, ratifications or accessions had been deposited by the following states: Australia, Cambodia, Columbia, Dominican Republic, Finland, Haiti, Jamaica, Malagasay, Malawi, Malaysia, Mexico, the Netherlands, Nigeria, Portugal, Senegal, Sierra Leone, South Africa, Uganda, the United Kingdom, the United States of America, Upper Volta, and Venezuela. Among those which did not even sign were: Chile, Ecuador, the Federal Republic of Germany, Greece, India, Italy, Japan, Norway, Peru, the Philippines, Poland, the Republic of Korea, Spain, Sweden, and the U.S.S.R. Communist China was not invited to do so. Among the nonratifiers, Peru, Japan, the People's Republic of China, and USSR, the four leading fishing states, account for well over half of all fish caught in the world. It might be noted that of the 22 states which brought the treaty into effect, 12 adhered by accession.

[14] The concept of international law as a process of authoritative decision-making has been developed chiefly through the writings of Professor Myres S. McDougal. For its application to problems of coercion, see M. MCDOUGAL & F. FELICIANO, LAW AND MINIMUM WORLD PUBLIC ORDER 39-59 (1961); to problems of outer space, see M. MCDOUGAL, H. LASSWELL, & I. VLASIC, LAW AND PUBLIC ORDER IN SPACE 94-137 (1963); to problems of the sea, see M. MCDOUGAL & W. BURKE, THE PUBLIC ORDER OF THE OCEANS 36-51 (1961); and to fishery problems, see JOHNSTON 111-28.

maker representing the world community. Decision-making for the solution of present and future fishery problems can be expected to function "diagonally"—if the geometric metaphor be retained—even though the chief decision-makers in the world community, the nation-states, are still arranged "horizontally" in legal theory, and the structure of authority within the world community continues to be studied and described on the "vertical" plane.

A. World Community Fishery Authority

The prescriptions of traditional international law relating to fishery use were derived from the regime of territorial waters and from the concept of the freedom of the high seas. The latter concept was applied universally outside territorial limits.[15] Within its territorial sea the coastal state was granted absolute, unshared authority over all fishery activities, including of course the right to deny foreign access to its stocks and the privilege of ignoring conservation needs. In the high seas the fisherman of all states were assured immunity from international restrictions of any kind—except that they were subject to the general laws of navigation like all other seafarers—and, unless they were bound by the actions of their own state, they were free to fish without regard for conservation on the basis of equality with the fishermen of all other states. Inevitably, the more advanced fishing states in the Northern Hemisphere discovered the need for treaty arrangements to redefine fishing rights, to prescribe norms of conduct on the fishing grounds, and eventually, to stimulate joint inquiries into the conservation needs of a shared resource and to recommend conservation measures.

Both the pattern of these treaty arrangements and the classical doctrine of the international law of the sea are reflected in the conventions signed at Geneva in 1958 at the United Nations Conference on the Law of the Sea. In large measure, the delegates accepted both the old and the new presented in the drafts prepared by the International

[15] Originally the high seas, or open sea, insusceptible of effective occupation or conquest, was regarded not as an incomplete regime but as a "no-law" area. With the development of marine technology, men and vessels brought their own status of subjection to state authority into more distant waters, but pretentions aimed at imposing national or imperial authority over those waters were generally never accepted as consonant with world community policy. The concept of "territorial waters" emerged, in the minds of contemporaries, as a strictly limited seaward extension of the coastal state's territorial regime, with a few modifications necessary to secure international navigation from unnecessary interference. Today the concept of a "no-law" area is generally regarded as repugnant to that of a world community based on law.

Law Commission, at the instance of the General Assembly of the United Nations. Basic to this attempt to codify the international law of the sea was the old distinction between the territorial sea and the high seas; in addition, recognition was given to a high seas zone contiguous to the territorial sea, in which the coastal state was granted special authority for specific purposes which did not include the exploitation or conservation of fishery resources.[16] By way of innovation, consent was given to the establishment of a regime of the Continental Shelf within which the coastal state was granted "sovereign rights" for the purpose of exploring and exploiting the natural resources of the Shelf.[17] "Natural resources" was defined to include certain fishery species: "living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil."[18]

The extent of the Continental Shelf varies enormously in different parts of the world. Thus, some coastal states gained much more than others from this conferral of absolute, unshared authority over sedentary fisheries. The significance of this is heightened by the diplomatic failures in 1958 and 1960 to reach a formal two-thirds majority consensus on uniform territorial limits or uniform exclusive fishing limits. Hence, the codified international law of the sea does not provide uniform limits to the area within which coastal states may exercise absolute, unshared authority over the exploitation of fisheries. In state practice, divergent claims continue to be made to exclusive fishing zones, sometimes beyond generally acceptable limits of the territorial sea. This lack of equality must be construed as an abuse of the provision in the Convention on the High Seas which lists "freedom of fishing," both for coastal and noncoastal states, as a component of the freedom on the high seas.[19] It also puts in question the applicability of

[16] Article 24(1) of the Convention on the Territorial Sea and the Contiguous Zone states:

> 1. In a zone of the high seas contiguous to its territorial sea, the State may exercise the control necessary to:
>
> (a) Prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea;
>
> (b) Punish infringement of the above regulations committed within the territory or territorial sea.

[17] Article 2(1) of the Convention on the Continental Shelf, U.N. Doc. No. A/CONF.13/L.55(1958).

[18] *Id.* at art. 2(4).

[19] Article 2 of the Convention on the High Seas states:

> The high seas being open to all nations, no State may validly purport to subject any part of them to its sovereignty. Freedom of the high seas is exercised under the conditions laid down by these articles and by the other rules of

the Convention on Fishing and Conservation of the Living Resources of the High Seas to those areas where extensive territorial claims have been made by coastal states and challenged by noncoastal states.

However unavoidable politically, it is unfortunate that the first world community fishery regime was carved out of the classical regime of the high seas. Although the "high seas" covers a very large, if still indefinite, proportion of the world's oceans—"all parts of the sea that are not included in the territorial sea or in the internal waters of a State"[20]—the limitation is logically untenable and fatal to any projected fishery regime, since fish pay as little attention to man-made limits as the doctrinaires of territorial limits have paid to fish. The establishment of spatially-defined and divided regimes, such as those of the "contiguous zone" and the Continental Shelf, does not contribute to the rational development of an international law of fisheries in an age when many coastal states have purportedly extended the scope of their authority without regard to the nature of fishery problems. As ecological studies continue to show the interrelationships between inshore and offshore stocks, it is difficult to see how some regional and subregional schemes of fishery authority can be expected to conduct rational programs of fishery use if they must limit their activities to irrelevant man-made zones.

If, on the other hand, the future of the international law of the sea lies with "functional regimes"—which would be favorable to the rational treatment of problems of old uses, such as fisheries, military security, transport and communication, and of newer uses, such as storage, power, mineral exploitation, and weather modification, and of emerging uses, such as residence and recreation—then the texts signed at Geneva in 1958 are riddled with inconsistencies. The chief inconsistency lies in the coexistence of the historically derived "status regimes" of the territorial sea and high seas with incomplete "functional regimes" for customs, fiscal, immigration and sanitary purposes, for the exploration and exploitation of mineral and sedentary living resources, and for the settlement of some kinds of fishery disputes within the "status regime" of the high seas.

international law. It comprises, *inter alia,* both for coastal and non-coastal States: (1) Freedom of navigation;
(2) Freedom of fishing;
(3) Freedom to lay submarine cables and pipelines;
(4) Freedom to fly over the high seas.
These freedoms, and others which are recognized by the general principles of international law, shall be exercised by all States with reasonable regard to the interest of other States in their exercise of the freedom of the high seas.

[20] *Id.* art. 1.

Apart from the restatement of the "right of fishing" on the high seas,[21] the Convention of Fishing and Conservation of the Living Resources of the High Seas is entirely concerned with a framework of principles and procedures to assure the conservation of stocks in the high seas:

1. Universal Duty to Conserve. All states were placed under the duty "to adopt, or to co-operate with other states in adopting, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas."[22] Conservation programs, it was asserted, should be formulated "with a view to securing in the first place a supply of food for human consumption."[23]

It is submitted that this language tends to conceal the existence of two related but distinct developments: the necessity to develop marine resources on an increasing scale of activity, in order to augment food supplies for rising populations; and the necessity to discipline and correlate intensive fishing effort according to the most relevant socio-economic factors in light of the best available scientific knowledge. The "have not" countries will continue to be almost entirely motivated by the first, the "haves" increasingly by the second.[24] World community prescriptions should place equal emphasis on both. Accordingly, the "universal duty to conserve" should be restated as one of two basic and complementary principles: first, the *principle of resource development,* which enjoins international law to facilitate the development of the world's marine resources, and which may even be interpreted to place an obligation on states to assist in that development; second, the *principle of nonimpairment,* according to which practices tending to impair stock productivity are deemed contrary to the interest of the world community and all users are under obligation to conform their behaviour to conservation requirements. It is impor-

[21] Article 1(1) of the Convention on Fishing and Conservation of the Living Resources of the High Seas states:

> 1. All States have the right for their nationals to engage in fishing on the high seas, subject
> (a) to their treaty obligations,
> (b) to the interests and rights of coastal States as provided for in this Convention, and
> (c) to the provisions contained in the following articles concerning conservation of the living resources of the high seas.

[22] *Id.* art. 1(2).

[23] *Id.* art. 2.

[24] The official records of the United Nations Conferences on the Law of the Sea, held at Geneva in 1958 and 1960, show a clear rift in fishery policy between the "haves" and the "have nots." Certain debates indicate a division between coastal fishing interests and distant fishing interests. The two distinctions are related since only "have" fishing states have distant fishing interests.

tant to have these principles established in law in order to assure universal official discouragement of the two main forms of waste: underfishing and overfishing.[25]

2. *Special Interest of the Coastal State.* The Convention recognized that a coastal state "has a special interest in the maintenance of the productivity of the living resources in any area of the high seas adjacent to its territorial sea"[26] which entitles it "to take part on an equal footing in any system of research and regulation for purposes of conservation of the living resources of the high seas in that area, even though its nationals do not carry on fishing there."[27] Noncoastal user states are placed under an obligation to enter into negotiations with the coastal (user or nonuser) state, at the latter's request, in order to reach agreement on appropriate conservation measures.[28] In the absence of an agreement within six months of the request, the coastal state's special interest entitles it to adopt unilateral measures of conservation, which are binding on noncoastal user states provided three requirements are met: (a) that there is a need for urgent application of conservation measures in the light of existing knowledge of the fishery; (b) that the measures adopted are based on appropriate scientific findings; and (c) that such measures do not discriminate in form or in fact against foreign fishermen.[29] Procedures are set out to ensure the coastal state's participation in international conservation authority, when the latter deals with a resource close to the state's territorial limits, even though the state is a nonuser of the particular resource.[30]

At the 1958 and 1960 Conferences on the Law of the Sea some delegations unsuccessfully attempted to establish a principle which would grant a coastal state with an exceptionally heavy socio-economic dependence upon fishery stocks close to its shores preferential rights of fishing within more extensive limits than those enjoyed by other coastal states.[31] As it stands in the text, the concept of "special interest"

[25] *See* JOHNSTON 149-51. Although these two principles seem to be directed against the two most conspicuous examples of resource waste, underfishing and overfishing, it should be remembered that waste takes other forms, such as underuse of catches (rejection of "unmarketable" species), and spoilage of the resource (pollution).

[26] Article 6(1) of the Convention on Fishing and Conservation of the Living Resources of the High Seas.

[27] *Id.* art. 6(2).

[28] *Id.* art. 6(3).

[29] *Id.* art. 7.

[30] *Id.* arts. 8-12.

[31] Iceland is the most obvious candidate for preferential treatment on this ground. For a summary of the Geneva debates on this question, see JOHNSTON 282-88.

applies equally to all coastal states, user and nonuser, by the mere reason of their contiguity, and certain privileges can be enjoyed if the state can discharge the onus of proving that the prescribed requirements have been fulfilled. Accordingly, the "special interest" granted uniformly to coastal states is typical neither of the inclusive rights subsumed under the rubric of shared authority, within the regime of the high seas, nor of the exclusive rights subsumed under the rubric of unshared authority, within the regime of the territorial sea. The special authority residing in coastal states by reason of their special interest might be described as *modified* conservation authority.[32]

[32] Note, however, that many states have supported the "special interest" principle in the belief that it will entitle them, in certain situations, to unilateral action and exclusive practices. For this reason, it may be regarded in some important aspects as a development in the history of claims to unshared authority. *Id.* at 344-55.

The apparently monopolistic authority of the coastal state over the exploitation of sedentary fisheries on the shelf, granted by the Convention on the Continental Shelf, is not brought expressly under the principle of the special interest of the coastal state but seems to be modified in effect by the terms of art. 13(1) of the Convention on Fishing and Conservation of the Living Resources of the High Seas:

> The regulation of fisheries conducted by means of equipment embedded in the floor of the sea in areas of the high seas adjacent to the territorial sea of a State may be undertaken by that State where such fisheries have long been maintained and conducted by its nationals, provided that non-nationals are permitted to participate in such activities on an equal footing with nationals except in areas where such fisheries have by long usage been exclusively enjoyed by such nationals. Such regulations will not, however, affect the general status of the areas as high seas.

If this article is intended to apply independently of the special interest principle but in conjunction with the provisions of the Convention on the Continental Shelf, then it seems that in the situation where the coastal state has "long" shared the sedentary fishery with a noncoastal state, the coastal state has only modified authority over exploitation and conservation because of the nondiscriminatory clause. On the same assumptions, the coastal state seems entitled to unshared authority over exploitation and conservation in situations where its nationals have "long" exploited a fishery by fixed equipment exclusive of foreigners. In all other situations, vis-à-vis nonuser states and relative newcomers, it might be supposed that even the nonuser coastal state would be entitled to unshared authority over exploitation by reason of its "sovereign rights," granted in the Convention on the Continental Shelf; and if noncoastal states in these two categories cannot acquire exploitation authority, because of the coastal state's "sovereign rights," it is difficult to see how they could ever acquire the interest to establish a right to participate in conservation authority. This reasoning is based on a "literal" reading of "sovereign rights," which is itself inconsistent with the rights afforded to the "long" user noncoastal state in art. 13(1), quoted above.

If, on the other hand, art. 13(1) and the provisions of the Convention on the Continental Shelf have to be taken together with the "special interest" provisions in order to determine the coastal state's authority over sedentary species caught by "equipment embedded in the floor of the sea in areas of the high seas adjacent to the territorial sea," then art. 13(1) is both tautologous (since the coastal state is assured participation in conservation authority under the "special interest" principle) and incomplete (since the coastal state's conservation authority is not limited to the situation where the fisheries "have been long maintained and conducted by its nationals").

In practice, it might be supposed that disputes in these situations will be rare. In the recent Franco-Brazilian lobster dispute these articles were much discussed, although neither party was bound by them, but the debate also focused on the biological question whether lobsters belonged to those organisms "which, at the harvest-

In order to clarify the significance of special interests at the world community level of prescriptions in the international law of fisheries, it is important to restate another basic principle which must be regarded as complementary to that of special interest, namely that of general interest. By this principle it is presumed a priori to be in the general interest of mankind—present and future generations—that a physically shareable fishery resource located in a nondomestic domain should be shared on an inclusive basis, and that since the resource is renewable, all the users and interested nonusers should participate in schemes to ensure its most rational use. This presumption in favor of the *internationalization of fishery authority* is made in the belief that it tends to promote the widest and most equitable distribution of benefits that can be derived from the sea.[33] However, it could happen that the coastal or near-coastal state is in the best position to direct conservation policy and, provided that this policy does not discriminate unfairly against other states, it might be in the best interest of all exploiters that the coastal state be granted unilateral enforcement powers to ensure the most effective means of making all exploiters conform to the requirements of conservation policy. At the same time, with a view to future changes in needs (consumer demand) and opportunities (technology and trade), it is difficult to see why the complementary concept of special interest would necessarily be limited to coastal states and conservation authority.[34]

On the other hand, it lies in the nature of the special interest concept that it prove its case. At the present time a clear world community consensus grants coastal states an exclusive interest in fishery and all other activities within uniform territorial limits that it still cannot define. Although clear world community consensus still cannot be found to define the extent of these territorial limits or of uniform limits within which a coastal state would be entitled to unshared exploitation authority, the basic policy of international fishery authority should not be regarded as dependent on reconciliation of these divergent claims.

able stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil," as required by art. 2(4) of the Convention on the Continental Shelf. *See* Azzam, *The Dispute between France and Brazil over Lobster Fishing in the Atlantic,* 13 INT'L & COMP. L.Q. 1453 (1964).

[33] JOHNSTON 151.

[34] This view of the complementary relationship between "general interest" (sustaining schemes of "shared authority" and certain inclusive principles and procedures in schemes of "modified authority") and "special interest" (sustaining schemes of "unshared authority" and certain exclusive principles and procedures in schemes of "modified authority") is very close to the view that the "common interest" of the world community lies in an "economic balance of exclusive and inclusive uses." *See* McDOUGAL & BURKE, *supra* note 14, at 51-56.

There is now an accelerating trend towards a multiplicity of regional and subregional schemes of fishery authority. Within the policy limits prescribed at the world communal level, more detailed prescriptions will have to be made by these schemes to adjust the balance between inclusive and exclusive uses for particular areas and stocks in each region. In this way, claims to special interest can be made more specific and be dealt with by the appropriate diplomatic managerial or arbitral decision-maker referring to the most relevant factors. This degeneralization of references to "special interest" will facilitate the clarification of exploitation and conservation policy for the regional and subregional schemes of authority.

3. Voluntary Negotiation and Compulsory Arbitration. Two important features of the Convention were the statement of the principle that conservation problems should be solved, whenever possible, "on the basis of international co-operation through the concerted action of all the States concerned,"[35] and by the establishment of a much disputed system of compulsory arbitration of fishery disputes which prove in the last resort to be incapable of resolution through voluntary diplomatic negotiations.[36] Most delegates endorsed the sentiment that voluntary agreement is always preferable to the imposition of solutions by third parties, however enlightened and impartial the process of adjudication. But it should be noted that those same delegates voted for a system of "directed negotiation," whereby user states were placed under obligation to enter into negotiations for agreement on conservation policy. It was also generally accepted at Geneva that the codification should not impair the effectiveness of existing schemes of fishery authority; but because of the pressure asserted by many developing nations this principle was subordinated to that of the coastal state's special interest and found expression only in two resolutions.[37] Im-

[35] *Preamble* to the Convention on Fishing and Conservation of the Living Resources of the High Seas.

[36] *Id.* arts. 9-12.

[37] The Draft Resolution on International Fishery Conservation Conventions provides:

> *The United Nations Conference on the Law of the Sea, Taking note* of the opinion of the International Technical Conference on the Conservation of the Living Resources of the Sea, held in Rome in April/May 1955 (as expressed in paragraph 43 of its report, as to the efficacy of International conservation organizations in furthering the conservation of the living resources of the Sea;
>
> *Believing* that such organizations are valuable instruments for the co-ordination of scientific effort upon the problem of fisheries and for the making of agreements upon conservation measures,
>
> *Recommends:*
>
> (1) That States concerned should co-operate in establishing the necessary conservation regime through the medium of such organizations covering particular

plicit in these resolutions is the recognition that many fishery problems are best treated within the framework of regional and subregional organizations, where diplomatic and managerial decision-makers with expert knowledge special to the region or area already exist.

Obviously, it is desirable to seek solutions to fishery problems in free negotiation involving all interested parties. Unfortunately, the text of the Convention does not stress the obligation of all users sharing a resource to cooperate, in the general interest, with existing regional or subregional schemes of authority. It should be emphasized that maximum participation by interested parties in the making of regional community policy serves to minimize distorted perceptions of general and special interest and to dispel the illusion that the national interest suffers from becoming only one of several legitimate factors in the making of general policies for the most rational use of the region's resources. In balancing the general and special interest in favor of the coastal state, the Convention seems to reflect, and may tend to stimulate, the same kind of economic nationalism that motivates claims to extensive territorial and exclusive fishing limits.

Much more controversy was engendered by the Geneva debate on the provisions for compulsory arbitration,[38] and it is certain that the failure of some signatory states to support the Convention is due principally to their reluctance to accept this principle which seems to challenge their sovereignty. As the pressures on shared and shareable re-

areas of the high seas or species of living marine resources and conforming in other respects with the recommendations contained in the report of the Rome Conference;

(2) That these organizations should be used so far as practicable for the conduct of the negotiations between States envisaged under articles 52, 53, 54, and 55, for the resolution of any disagreements and for the implementation of agreed measures of conservation.

The Draft Resolution on Co-operation in Conservation Measures in the Adjacent High Seas provides:

The United Nations Conference on the Law of the Sea, Taking note of the opinion of the International Technical Conference on the Conservation of the Living Resources of the Sea, held in Rome in April/May 1955, as reported in paragraphs 43*(a)*, 54 and others of the Report, that any effective conservation management system must have the participation of all States engaged in substantial exploitation of the stock or stocks of living marine organisms which are the object of the conservation management system or having a special interest in the conservation of that stock or stocks,

Recommends to the coastal States that, in the cases where a stock or stocks of fish or other living marine resource inhabit both the fishing areas under their jurisdiction and areas of the adjacent high seas, they should co-operate with international conservation agencies as may be responsible for the development and application of conservation measures in the adjacent high seas, in the adoption and enforcement, as far as practicable, of the necessary conservation measures on fishing areas under their jurisdiction.

[38] For a review of the Geneva debate on compulsory arbitration, see JOHNSTON 417-23.

sources increase in number and intensity, it is inevitable that certain types of disputes will prove unamenable to consensual decision and that recourse to third party settlement will be the only hope of providing a rational satisfaction. Because of the technical difficulties inherent in fishery disputes, arbitration seems the most appropriate form of adjudication. It seems elementary that if participating governments are truly committed to the continuance of international schemes of fishery authority, they must be prepared to accept in advance the merits of a system of last resort arbitration for the impartial settlement of disputes which cannot be resolved without reference to scientific and technical considerations. Regional fishery disputes which cannot be resolved through negotiation may be expected to involve choices which the parties regard as vital to their economic policies. But unlike problems which are deemed to involve strategic "necessity" or ideological "commitment," fishery problems are amenable to rational analysis. If "directed negotiation" fails to produce the spirit of rational analysis, it seems both fair and realistic that the next step should be compulsory arbitration.[39] Once the arbitration tribunal has completed its analysis, it might be more sensible for it to issue a recommended plan based on a broad examination of the facts surrounding the dispute rather than to exercise its full competence in handing down a "binding decision." If it is cynically suggested that rational analysis is the last thing that the disputants would accept, it should be stated that this possibility is the strongest reason for insisting on compulsory arbitration as the last resort; and that, at second best, the threat of rational analysis would serve to drive the disputants into a negotiated settlement.[40]

4. Biological Criteria of Conservation Policy. At the International Technical Conference on the Conservation of the Living Resources of the Sea, held at Rome in 1955, it was agreed that "the principal objective of conservation of the living resources of the sea is to obtain

[39] The entire Soviet bloc was opposed to the principle of compulsory arbitration, and only Yugoslavia signed the convention. Among the opponents of the principle in debate were Ghana and Uruguay, which signed but have not ratified, and Mexico, which did not sign but has recently acceded.

[40] It can be argued that with increasing regionalization of fishery authority, nation-states will gradually become less hostile to compulsory arbitration in practice, and that a regional system of arbitration over fishery disputes is more likely to build up a pool of expert adjudicators with special knowledge of a region's resources. Perhaps the decisions of such experts on the regional level are more likely to be accepted as "binding on the states concerned" after their reputation for expertise and impartiality has been confirmed by experience within a scheme of regional or subregional authority.

the optimum sustainable yield so as to secure a maximum supply of food and other marine products."[41] This biological objective of the optimum sustainable yield was accepted more or less uncritically by the International Law Commission and found its way into the 1958 Convention where conservation was defined as "the aggregate of the measures rendering possible the optimum sustainable yield from those resources so as to secure a maximum supply of food and other marine products."[42] As we have seen, two criteria to be applied to conservation measures adopted unilaterally by the coastal state refer to "the existing knowledge of the fishery" and "appropriate scientific findings;"[43] moreover, two requirements for the determination of conservation policy disputes in other situations are "that scientific findings demonstrate the necessity of conservation measures" and "that the specific measures are based on scientific findings and are practicable."[44]

The similarity of this language and its consistency with conservation objectives stated in a number of regional conventions conceal the fact that the articulation of conservation policy objectives has proved to be one of the most controversial questions in recent fishery literature, especially since 1953 when economists started to formulate the objective of an economic optimum.[45] The definition of conservation objectives goes to the heart of the most complex problems in fishery science and involves issues in political philosophy affecting a state's economic planning and foreign policy.[46] Moreover, in the actual practice of fishery management, both the biological optimum and the economic optimum are unattainable at present.[47] All these facts together,

---

[41] Report of the International Technical Conference on the Conservation of the Living Resources of the Sea, para. 18 (1955).

[42] Convention on Fishing and Conservation of the Living Resources of the High Seas, art. 2.

[43] *Id.* art. 7.

[44] *Id.* art. 10.

[45] Some of the earlier economic papers on fishery conservation are: DIVISION OF BALANCED INTERNATIONAL GROWTH, NETHERLANDS ECONOMICS INSTITUTE, THE DEVELOPMENT OF OFFSHORE FISHERIES AND THE ECONOMICS OF CHOICE (1958); THE ECONOMICS OF FISHERIES (Turvey & Wiseman, eds. 1957); Crutchfield, *Common Property Resources and Factor Allocation,* 22 CAN. J. ECON. & POL. SCI. 292 (1956); Gordon, *An Economic Approach to the Optimum Utilization of Fishery,* 10 J. FISH. RES. BD. CAN. 442 (1953); Gordon, *The Economic Theory of a Common Property Resource: the Fishery,* 62 J. POL. ECON. 124 (1954); Scott, *The Fishery: the Objectives of Sole Ownership,* 63 J. POL. ECON. 116 (1955).

[46] Many biologists and administrators, as well as economists, accept the argument that economic efficiency is a valid base goal in fishery management without being able to accept the logical conclusion that entry to a fishery should be limited to the number of exploiters that represents the most efficient degree of fishing intensity.

[47] The various biological and economic approaches to fishery management are well represented in BIOLOGICAL AND ECONOMIC ASPECTS OF FISHERIES MANAGEMENT (Crutchfield ed. 1959) (Proceedings of a conference held in Seattle under the auspices

it is believed, constitute sufficient reason for omitting the criteria of conservation policy from a world community code that addresses itself to all resources, all regions, and all users, in their almost infinite diversity. At the present stage in the developing international law of fisheries, world community level prescriptions should not purport to spell out world community fishery conservation objectives beyond espousal of the principles of resource development and nonimpairment of stocks. It is suggested instead that the formulation of conservation policy is pre-eminently a task to be undertaken rigorously at the regional level, where all interested parties can participate and make contributions in the light of the most relevant scientific findings and socio-economic factors. As knowledge and expertise increase, it may become feasible to submit challenges to regional or subregional conservation policy to arbitration, first at the subregional or regional level and then, on appeal, at the world community level, through a "vertical" system of expert tribunals. To envisage the submission of such difficult policy disputes to arbitral settlement, it is necessary to foresee the sophisticated use of "Brandeis brief" advocacy by the interested parties. What might sound slightly unreal in the 20th century may prove to be less than fantastic in the next.

5. Summary and Appraisal. It is consistent with the main provisions of the Convention on Fishing and Conservation of the Living Resources of the High Seas to postulate six principles which are already in the process of assimilation as world community level prescriptions of fishery authority: the principles of resource development, of nonimpairment of stocks, of collective authority in the general interest, of limited privilege in the special interest, of voluntary negotiation and of compulsory arbitration. But on this world community level it is believed to be unnecessary and unwise to articulate more detailed criteria of conservation policy purporting to have universal application,

---

of the College of Fisheries and the Department of Economics of the University of Washington, Feb. 17-19, 1959).

It is generally acknowledged that there must be a vast increase in scientific data before biological objectives can be intelligently pursued. Less attention has been given to the inadequacy of economic studies which depend on the figures of reported income and reported catches, despite the common practice of private sharing arrangements, in certain sections of the American fishing industry, between nonowner skippers and their crew. These unreported sharing arrangements are probably confined mostly to smaller vessels operating on a fairly small scale of organization and to species which are caught incidentally to the major commercial venture and therefore deemed to be of little interest to the owner, though still marketable. In sections of the American industry where these practices are prevalent, average incomes may be at least $1,000 above the figures reported by the industry.

whether for the management of conservation programs or for the settlement of fishery disputes.

The opportunities, responsibilities and limitations of making fishery policies on the world community level should be closely related to those on regional and subregional levels. The full range of authoritative responses to international fishery problems will be discovered only within a flexible, interlocking system of schemes of authority—of "split-level" authorities—which will permit appropriate initial choices to be made by interested parties for the prevention or settlement of disputes by diplomatic, managerial and arbitral methods at the three levels of organization.

The six principles focus chiefly on the goal of rational development of a world community resource through regional and subregional schemes of authority whose scope would be proportionate to the distribution of commercially exploitable stocks in the region. In this area of development and welfare, these relatively new principles and procedures may be regarded as participating in the evolution of a larger international law of cooperation which must seek to adapt investment and technology to a wide variety of problems of resource use. Much of the literature dealing with this larger international law of cooperation tends to focus on the developing country. But the problems of developing countries are only one aspect of the problems of international fishery authority, and many fishery problems originate beyond territorial limits.

Regional and subregional arrangements will be increasingly valuable as the most suitable framework for working out the implications of the six world community prescriptions of fishery authority.

B. Regional and Subregional Fishery Authority

1. Present Operations and Recommendations for the Future. The enormous diversities in the process of fishery use—in all the factors affecting the production, distribution, and consumption of fishery products—seem to ensure that the main thrust in the developing pattern of international fishery authority will be provided at regional and subregional levels. These diversities will constitute the main impediments to the discovery of acceptable and adequate solutions and to the erection of mutually satisfactory standards in the exploitation and conservation of shared and shareable resources. At present there is a remarkable variety of regional and subregional fishery organizations, possessed of varying degrees of authority, pursuing different objectives

by various means.[48] Some of these organizations are directed only at the coordination and stimulation of scientific research;[49] others are authorized to make recommendations to the member states for joint conservation of the stocks;[50] still others have been granted a degree of autonomy, and their own staff, to implement measures adopted in their own discretion, albeit subject to the approval of the member states.[51] A scheme of conservation authority is focused either on a specific stock or species or on a geographically defined area of waters. Stock-based programs tend to be more restricted—subregional—in scope, but the International Whaling Commission has jurisdiction over all whaling activities in the world, and the projected Atlantic tuna commission will have jurisdiction over the conservation of all tuna in the entire Atlantic Ocean, including adjacent waters such as the Mediterranean, the Caribbean and the Gulf of Mexico.[52] Area-based programs are usually more extensive in scope, though sometimes confined to enclosed waters.[53]

[48] For a recent analysis of intergovernmental fishery organizations, with special reference to the projected Atlantic Tuna Commission, see Carroz & Roche, *The Proposed International Commission for the Conservation of Atlantic Tunas*, 61 AM. J. INT'L L. 673 (1967). *See also* Burke, *Aspects of Internal Decision-Making Processes in Inter-Governmental Fishery Commissions*, 43 WASH. L. REV. 115 (1967), where the author examines the grant of capacity, membership provisions, structure, objectives, and distribution of authority functions within eight prominent commissions.

[49] Most of these have been set up in recent years under FAO sponsorship, *e.g.*, the Indo-Pacific Fisheries Council and the General Fisheries Council for the Mediterranean. But the oldest and most distinguished is the International Council for the Exploration of the Sea [hereinafter cited as ICES], which was formed in 1902 by nine Baltic and North Sea states.

[50] The International Convention for the Northwest Atlantic Fisheries, for example, has divided the region into 23 areas according to the distribution of species; each area is studied, through national research facilities, by a panel representing the states that exploit the dominant stocks in that region. On the basis of national research findings for its area, the panel proposes regulatory measures to the Commission, which reviews the recommendations and refers them in turn for joint action by the member governments.

[51] The best examples are the International Pacific Salmon Fisheries Commission and the International Pacific Halibut Commission, both representing Canada and the United States, and the Inter-American Tropical Tuna Commission. The Atlantic Tuna Commission is authorized to carry out its own research, but will be concerned primarily with coordinating national research programs.

[52] *See note* 61 *infra*.

[53] The Baltic Sea, being adjacent to the Northeast Atlantic Ocean, might have been included in an extensive area-based fishery organization, but the Baltic fishing states have preferred to make their own bilateral and multipartite arrangements to regulate fishing. After careful research by the ICES early in the century, a Baltic Convention was concluded in 1929 by Denmark, Germany, Poland, Danzig, and Sweden, prohibiting trawling and providing for a closed season. A similar convention was concluded in 1932 by Sweden, Denmark and Norway for the protection of the plaice fishery in the Skagerrak, Kattegat and the Sound. The most recent development in that area is the Baltic Sea Salmon Conservation Agreement, which went into effect on March 1, 1966, binding Denmark, Sweden and the Federal Republic of Germany. It is reported that these conservation measures may also be put into effect by the other exploiters of the Baltic salmon—Poland, Finland, and the

The significance of the distinction between regional and subregional decision-making for future schemes of authority will be most evident in a region where a decision-making institution representing all the fishing states of the region coexists with a number of other decision-making institutons representing only certain of these states and focusing on more limited areas or on specific stocks or species. Such a system—a "split-level" regional system—of fishery authority would be subordinate to policy prescribed at the world community level, but within that "constitutional" framework it should be allowed to develop according to the needs and opportunities of the whole region.[54] The various subregional schemes within a region need not, and presumably would not, bear an identical relationship to the regional scheme, and the split-level system might operate quite differently from one region to another. It is envisaged, however, that it would become commonly acceptable in each region for the regional scheme to have at least some kind of supervisory authority over the policies of the subregional schemes, so that it can exert a coordinating influence and facilitate the most rational use of the region's resources as a whole.

It is clear that the rapidly innovative technology of the highly industralized fishing states, such as Japan and the Soviet Union, will soon involve their fishermen in almost year-round activities in virtually every commercially important fishing region in the world.[55] The regional scheme, therefore, would have to be open to all regional par-

Soviet Union—even though they have not ratified the agreement. 28 COM. FISHERIES REV., No. 3, at 40 (1966). For the Black Sea Fisheries, on the other hand, a joint commission has been established by Bulgaria, Rumania and the U.S.S.R., but the remaining coastal state, Turkey, has not yet joined.

[54] It can also be anticipated that certain kinds of regional decisions will influence the making of later decisions at the world communal level. The diplomatic decision-makers of any region also participate in the process of decision-making at the world communal level. Men qualified to serve in administrative and arbitral positions are called upon to play decision-making roles at all three levels of international fishery organization. Almost all contemporary fishery experts at senior levels have served most of their career in national governmental service. This training pattern is not likely to change substantially through the efforts of the FAO to provide technical and managerial training to developing countries, since these efforts are directed mainly at present or future governmental employees.

[55] It has been recently estimated that both Japan and the Soviet Union now have over 3,000 deep sea fishing vessels. Brady, *Focus on the Soviet Fleet,* 4 FISHING NEWS INT'L, No. 4 at 392 (1965). The growing capacity of other countries for extra-regional fishing is evidenced by the construction of long-distance fleets of large freezer trawlers in East Germany, West Germany, Poland and the United Kingdom. Calculated by tonnage, Japan, Poland and Sweden lead in the construction and export of fishing vessels. 28 COM. FISHERIES REV., No. 3, 66 (1966). Several Mediterranean fishing states, such as Greece, Italy and Egypt, are reported planning distant water fleets. 5 FISHING NEWS INT'L, No. 4, 6 (1966). West Germany is now exploiting distant and far distant Atlantic waters, off the Faroes, Greenland, Labrador, and South Africa. *Id.* at 11. This trend towards more distant fishing by highly industralized fishing states could be documented at length.

ticipants regardless of their geographical location; otherwise the entire system might prove unworkable. Political pressure to curtail the activities of these expansionist extraregional fishing states may be inevitable in some regions, but this should make it all the more desirable that the extraregional claimants have access along with the intraregional claimants to the regional process of decision-making. The first concern of the regional scheme should be the most rational development of the region's resources, rather than the economic advancement of the intraregional fishing states.[56] Regional fishery policies discriminating against extraregional exploiters would violate the "general interest" principle of internationalization and would probably involve restrictions on the principle of resource development. The privileges obtainable under the principle of special interest should exist independently of the problem of extraregional users, and only considerations of stock impairment should limit the degree of development.

It should be observed that these recommendations are consistent with current developments in the allocation of international fishery authority. Admittedly, many of the developments in international cooperation affecting fishery development and conservation are limited to the organization of scientific inquiry, but it is generally anticipated that the results of scientific effort will provide the rationale for some kind of conservation program, whether it is to be managed jointly by the states themselves or by the neutral staff of an international commission with regulatory powers. The best illustration of these developments is in the North Atlantic. In the late 1930's several scientists supported a projected international scheme of fishery authority with

[56] The danger of discrimination against extraregional users will be reduced if all users and intraregional nonusers with an interest in maintaining the region's fishery resources can agree on giving proper weight to the consideration of resource capacity. Economic regionalism would not represent much of an improvement upon economic nationalism. One method of combatting both is the international fishing venture where foreign capital and expertise are combined with domestic labor and shore facilities to mutual advantage. According to the 1966 report of the Japanese Fisheries Agency, Japanese fishing interests have invested over $6.4 million in overseas fishing ventures representing 32 corporations in 28 different countries. 6 FISHING NEWS INT'L, No. 2, at 12 (1967). Most of these overseas fishing ventures are financed jointly, half by a private Japanese firm and half by the host country. The firm provides technical guidance and training for fishermen of the host country and usually provides masters for the vessels as well. The base usually includes a processing plant for freezing the fish which frequently packages the product for export. With the entry of Japanese vessels into the Northwest Atlantic fishing grounds and a continuing labor shortage in Japan, it is likely that more servicing bases will be established in the region on the joint venture basis. CHRISTY & SCOTT 121. Ventures of this kind might not be easily undertaken by fishing enterprises of socialist economies, such as that of the Soviet Union, but the Japanese success may encourage similar distant fishing enterprises by countries such as Britain, West Germany, and possibly Poland, which has private and cooperative, as well as state, fishing enterprises.

jurisdiction over the entire North Atlantic, but as it proved diplomatically impossible to accomplish this kind of "Atlantic Alliance," the North Atlantic was split into two conservation regions at the request of the United States, with the Overfishing Convention of 1946 confining itself to the area east of longitude 42°W.,[57] and the International Commission for the Northwest Atlantic Fisheries of 1949 assuming jurisdiction in the area to the west.[58] In the last few years, however, the trend towards very close cooperation throughout the entire North Atlantic has accelerated, partly because of the discovery that salmon from both American and European rivers contribute to the Atlantic salmon fishery off west Greenland, close to the jurisdictional dividing line between the Northwest and Northeast Atlantic.[59] Moreover, when the United Kingdom convened the Northeast Atlantic Fisheries (Policing) Conference in 1965, invitations were sent to the United States, Canada and Japan, as well as to 14 European fishing states;[60] and the 1966 International Convention for Conservation of Atlantic Tuna was sponsored by the FAO.[61] It is significant, in the

[57] This convention, often referred to as the North Sea Convention of 1946 or, more properly, the Convention for the Regulation of the Meshes of Fishing Nets and the Size Limits of Fish, April 1946, U.N.T.S. No. 3221, vol. 231, at 199, applied to the area east of a line down the eastern side of the lower tip of Greenland as far east as long. 36°E. in the Barents Sea and as far south at lat. 48°N. opposite the coast of Brittany. Growing dissatisfaction with the limitations of this convention brought 14 states together in 1959 for the conclusion of the Northeast Atlantic Fisheries Convention, Jan. 24, 1956, U.N.T.S. No. 7078, vol. 486, at 157, whereby an International Fisheries Commission (NEAFC) was established to make specific conservation recommendations for a much larger area of waters stretching as far east as long. 51°E. Barents Sea to as far south as lat. 36°N. opposite the Strait of Gibralter, though still excluding the Baltic and the Mediterranean. The 1959 convention came into effect in 1963 thus abrogating its predecessor signed in 1946, except for a few specified provisions which were to be regarded as "recommendations" under the 1959 convention.

[58] The area of ICNAF, to the west of long. 42°W. stretches from lat. 39°N., south of Rhode Island as far north as lat. 78° 10'N. off the west coast of Greenland. *See* Engholm, *Fishery Conservation in the Atlantic Ocean* in ATLANTIC OCEAN FISHERIES (Borgstrom & Heighway eds. 1961).

[59] It appears important to determine what proportion, if any, of these salmon return to the rivers of Europe and North America. Revitalized under a new constitution as the scientific adviser to NEAFC, the ICES expressed intense interest in the salmon research program proposed by ICNAF at its meeting in June 1965. Approval was given by the ICES to the establishment of a joint ICNAF-ICES Working Party on Atlantic Salmon to supervise studies to determine the potential yield of salmon stocks in both continents, and it was recommended that ICNAF and ICES groups should explore the possibility of preparing a list of fishing craft operating in the North Atlantic. 28 COM. FISHERIES REV., No. 1, at 61 (1966).

[60] Since the Soviet Union was one of the European states invited to the conference, all four of the North Pacific fishing states have been participating in the discussion of problems existing in the Northeast Atlantic—a remarkable demonstration of the degree of international cooperation and inter-regional consultation now developing in world fishing, especially among the advanced fishing states.

[61] The draft convention was prepared in July 1965 at an FAO working party session and opened for signature at Rio de Janeiro on May 14, 1966, when 17 nations expressed their approval. This new convention will set up an international commission and permanent staff not only to deal with research but also to make conservation

one case, that Canada and the United States do not fish in the Northeast Atlantic and that Japan does not even "belong" to the Atlantic region; and in the other case, that the conservation of Atlantic tuna was initiated at the world community level and that three of the exploiters—Japan, South Korea and Taiwan—are non-Atlantic states.[62]

These developments in the Atlantic raise the question whether the perspective to be adopted should be limited to that of the North Atlantic, or extended to the entire Atlantic Ocean. Scientific, diplomatic and administrative attitudes do not coincide. Marine ecologists are likely to have the broadest viewpoint of all; and presumably diplomats, at the other end of the scale, are the most likely to shrink from participation in a regional scheme covering the entire Atlantic Ocean. Difficult policy and administrative problems are inevitable in a regional scheme shared by a vast number of fishing states, representing varying degrees of technological and economic advancement. Heterogeneity among the exploiters of the Atlantic tuna would not cause too much difficulty if the Commission were devoted mainly to the collection of scientific data. It will be interesting to see whether its members will be able to agree on the measures necessary for the conservation of the far-ranging species.[63]

---

recommendations based on scientific findings. As in the case of ICNAF, panels will be set up on the basis of species, groups of species, or of geographic areas. Covering the whole Atlantic Ocean and adjacent waters such as the Caribbean, the Gulf of Mexico and the Mediterranean, the convention directs the commission to work in close co-operation with the FAO. It is open to all member nations of the United Nations and its specialized agencies. 27 COM. FISHERIES REV., No. 9, at 52 (1965); 28 *Id.* No. 7, at 57 (1966). The Convention will come into force on the deposit of the seventh instrument of ratification. At the time of writing the Convention had been signed by Brazil, Spain, South Korea, United States, Japan, and Italy.

[62] Much of the tuna fishing activity by distant fishing states has been concentrated in the Southeast Atlantic, far beyond the territorial limits of South and Southwest Africa. But the increasing volume of these "foreign intrusions" has caused resentment in Southwest Africa in the adjacent coastal states and induced fears of overfishing. 28 COM. FISHERIES REV., No. 3, at 67-68 (1966). Resentment is increased by foreign participation in the neighboring pilchard and anchovy fishery which now yields more than one million tons annually, mostly for reduction into fish meal and oil.

Most of the vessels flying the flags of Ghana and Poland off Southwest Africa have been leased out by the Soviet Union and are manned in many cases by Russian crews. Article 5(1) of the Convention on the High Seas requires that a "genuine link" exist between a vessel and the flag state, and in particular that "that State must effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag." It is interesting to speculate that fishery regulations might be evaded in the future through the use of "flags of convenience." *See* CHRISTY & SCOTT 171-72, n.38.

A tuna fishery has not yet developed in the Northwest Atlantic, but exploration of the oceanic region adjacent to the continental shelf of North America indicates commercially significant populations of bluefin tuna in winter and spring and of yellowfin tuna in summer and early fall. Squire, *Distribution of Tunas in Oceanic Waters of the Northwestern Atlantic*, 62 FISHERIES BULL., No. 211 (1962).

[63] Carroz & Roche, *supra* note 48, at 685-86.

It is conceivable that as additional scientific data is procured, in the Atlantic and elsewhere, subregional schemes will tend to proliferate, so that the "conservation unit" can be kept as specific and controllable as possible.[64] This might seem to suggest that managerial decision-makers, confronted with day-by-day administrative problems, will function more effectively at the subregional level, whereas arbitral decision-makers, faced with the tasks of policy synthesis and reconciliation, will gain most from the regional perspective. The situation might be more complicated in underdeveloped fishing regions, where most of the initiative in sponsoring international research and conservation programs is taken on the world community level by the Fisheries Department of the FAO, although even under its current expansion program that body has expressed reluctance to add to its present limited roles.[65] Certainly, as more stocks in the same region come under specific management, there will be increased need to reconcile these programs above the subregional level.

2. *Summary and Appraisal.* Due to unresolved complexities and wide diversities in the exploitation and conservation of fishery resources, there is a strong case for limiting the number of world communal prescriptions to the six described above and for seeking new, nondoctrinal solutions to fishery problems through the provision of

[64] Scientists have difficulty in defining a basic unit for conservation purposes. A "population" of organisms has been described as "a homogeneous group of members of the same species, which interbreed freely among themselves and which occupy a continuous environment and so are able freely to intermix and thus maintain their homogeneity." Schaefer, *The Scientific Basis for a Conservation Program,* in PAPERS PRESENTED AT THE INTERNATIONAL TECHNICAL CONFERENCE ON THE CONSERVATION OF THE LIVING RESOURCES OF THE SEA 20 (1965). A "stock" has been defined in similar terms: "a single interbreeding and intermingling unit of one species of fish." Royce, *Concepts and Practices in the Conservation of Fishery Resources,* in THE FISHERIES: PROBLEMS IN RESOURCE MANAGEMENT 7, 17 (Crutchfield ed. 1965).

It might be questioned, however, whether the extent of a regional scheme's conservation authority should be limited to that of the protected population or stock. Whether a scheme is concerned with regulatory measures or only with scientific inquiries, it will be interested in encouraging investigations into the biotic and abiotic factors beyond the stock's own environment so as to discover more about the ecological processes in the entire, hypothetically effective marine environment. Research of this kind may be expected to continue indefinitely, and the limitations of a stock-based subregional scheme may be eliminated through the co-ordination of its policies with those of other schemes in the region.

[65] The following appears in Jackson, *FAO Fisheries: Next Big Step,* 5 FISHING NEWS INT'L No. 2, at 268 (1966):

> The fuller status of a Department of Fisheries and the improved framework contemplated will enable us to deal on a more equal basis with the increasing number of regional international fishery bodies who have, and will continue to have, the ultimate responsibility and authority for regulating international fisheries. FAO's role is that of a service organization providing information and technical assistance and promoting that cooperation which is essential in ocean fisheries and in many instances, in freshwater fisheries as well.

institutional perspectives and procedures on regional and subregional levels of organization. Since bilateral arrangements tend to be based on accommodation between two sets of national interests rather than on one set of impartial principles, preference should be given to the adoption of a full regional perspective by a centralized organization for the regional implementation of world community principles of fishery authority. As a precise formulation of conservation policy on the world community level proves unrealistic, regional schemes of fishery authority will inherit the task of supplementing the world community principle with policies based on the needs and opportunities of each region. Regional schemes should be open to all interested parties within the region and to all extraregional users. The development of several loci of decision-making seems bound to involve some new criteria of policy, as well as new procedures, since such a development is necessitated mainly by the unworkability of detailed or uniform conservation prescriptions on the world community level. It rests on the decision-makers for each region to ensure that their regional policies do nothing to diminish the flow of trade and economic and technical assistance from countries outside the region.

II. THE NORTH PACIFIC REGION

A. The Case for a Split-level System of Authority

It is probably sufficient for most purposes to consider the North Pacific as stretching north of the Tropic of Cancer, bounded on one side by the western coast of North America and on the other by the landmass of East Asia. For some fishery purposes it is normal to define the North Pacific more narrowly,[66] but by almost any definition the North Pacific fisheries have been exploited chiefly by four states: Canada, Japan, the Soviet Union, and the United States. Therefore, it is true to say that all four of the chief user States of the North Pacific fishery resources are resident States of the North Pacific region.

But the prospects for North Pacific fishery authority are enhanced by advantages other than the mere absence at present of an "extra-regional problem." All four States bordering the region enjoy a relatively high standard of living sustained by massive industrialized economies. Large funds of capital, technological skills and scientific knowledge are available, if not actually used, for investment in modern

[66] The area designated as "North Pacific" for statistical purposes by the FAO seems to be the area lying to the north of approximately lat. 40°N., just south of Hokkaido Island at one end and close to San Francisco at the other.

fishing fleets, ancillary services[67] and in hydrographic studies of all kinds. All four States are among the leading fishing States and the North Pacific is one of the world's major fishing regions.[68] Their societies feature stable governments and high standards of literacy and education. Between Canada and the United States, in particular, the sharing of language and similar culture, values and institutions, provides closely similar perspectives on many kinds of problems. All four States have contributed to international arrangements affecting the exploitation of the resources of the North Pacific.[69]

Not only are few user states involved in North Pacific fishing, but relatively few species have been intensively exploited. Accordingly, the vast sums of money and great scientific diligence expended by all four States on valuable species such as the salmon, halibut, and crab have resulted in the accumulation of impressive scientific data as a basis for national and international conservation programs. Super-

[67] Compared with the Soviet Union and Japan, and to a lesser extent Canada, the United States has scarcely begun to apply its great technological ability to the catching and processing of fish. The American fishing industry has been almost stagnant since 1950 and has not grown much since the late 1920's. "At the present time there is not a single trawler operating in the United States that would be considered to be a modern practical vessel in Japan, Russia, Iceland, England, Germany or Poland." Chapman, *U.S. Assists World Fisheries While Home Industry Declines,* in 2 FISHING GAZETTE, No. 2, at 12-28 (1965).

[68] In 1964, Japan had the second largest total catch (6.33 million metric (m.m.) tons, representing 12.3% of the world total catch) the U.S.S.R. had the fourth largest (4.48 m.m. tons and 8.7%); the United States was in fifth place (2.64 m.m. tons and 5.1%); and Canada was ninth (1.21 m.m. tons and 2.3%). In 1965 Japan, the USSR and the United States kept their places, and though Canada dropped to tenth position its catch was greater than in 1964.

Of the 1964 total world catch of 51.6 m.m. tons (live weight) the Pacific Ocean and adjacent waters contributed 25.6 m.m. tons (49%), the Atlantic Ocean and adjacent waters 18.1 m.m. tons (35%), and the Indian Ocean and adjacent waters 1.8 m.m. tons (4%). The North Pacific region produced 4.8 m.m. tons (9% of world catch), the Western Central Pacific 9.9 m.m. tons (19%), and the Eastern Central Pacific 0.5 m.m. tons (1%). But the most productive of all Pacific regions is the Southeastern which in 1964 yielded 10.3 m.m. tons (20%) mostly from the new and bountiful anchoveta fishery which has made the Peruvian catch the largest national catch in the world. In 1965 Peru remained in first place though its production fell from 9.1 m.m. tons in 1964 to 7.5 m.m. tons. (The anchovetas, which are mostly reduced to fish meal and fish oil, are vital in sustaining the guano birds which supported the famous fertilizer industry. Several years ago the bottom fell out of the world market for this natural fertilizer.)

On the basis of average production for the period 1957-59 the 1964 Pacific catch represented an increase of 88%, but this figure is inflated by the 602% increase in the Southeastern region! The average increase of over 26% for the North, Western Central and Eastern Central Pacific regions is just under the figure for the Atlantic Ocean as a whole. But in 1964 the North Pacific contributed 381,000 metric tons of salmon (chinooks, chums, cohoes, pinks and sockeyes), compared with only 13,000 metric tons of Atlantic salmon (which includes trouts and chars) and in the same year the North Pacific produced 197,000 metric tons of crabs compared with 88,000 metric tons elsewhere. FAO, 1964 FISHERY STATISTICS (1964); 6 FISHING NEWS INT'L, No. 3, at 16-18 (1967).

[69] On the history of international co-operation and organization affecting the North Pacific fisheries, see JOHNSTON 264-82, 370-96.

ficially, at least, it would seem that the North Pacific is a favorable arena for advances in regional fishery authority.

On the other hand, much of the apparent homogeneity is deceptive. The Soviet Union and Japan have enormous fleets equipped in the most modern fashion for long distance fishing,[70] whereas Canada and the United States depend more heavily on smaller craft designed for fishing in waters closer to home.[71] In the United States the fishing industry is declining and fishery imports continue to rise every year,[72] whereas Canada shows an impressive rise in fishery exports.[73] Japan fishes for enormous markets both at home and abroad,[74] whereas most of the

---

[70] The Russian fishing industry has undergone rapid expansion in recent years as attention has turned from over-fished domestic waters to distant fisheries, with marked increases in both the number and size of vessels. It is evident, despite the lack of reliable data, that the rate and amount of Russian investment exceeds that of any other fishing nation. CHRISTY & SCOTT 121-23; Armstrong, *Soviet Sea Fisheries Since the Second World War*, 13 THE POLAR RECORD, No. 83, at 155 (1966). Japanese investment in its huge fishing industry is reflected not in increased numbers of vessels but in increased tonnage, power and size of vessels. CHRISTY & SCOTT 117-21. Japan not only leads the world in the construction of fishing vessels but in ship building in general.

[71] Less than 3% of all fishing vessels in the United States are over 100 gross tons. In 1962 there were only 26 U.S. fishing vessels over 500 gross tons and these averaged only about 1,000 tons each.

Investments in modern vessels and equipment have been on a relatively low level in the United States, partly because the government is less directly involved in supporting fishing enterprises than governments of most other fishing states. CHRISTY & SCOTT 123-24. The American fishery program is often contrasted unfavorably with the Russian. *See, e.g.*, Chapman, *How Russia Develops Her Fisheries and Sea Power*, 4 FISHING NEWS INT'L, No. 4, at 402 (1965).

Almost none of the Canadian Pacific catch is taken in deep sea waters and almost two-thirds of the Canadian Atlantic fishing is still conducted within 15 miles of land in small craft. The Canadian offshore Atlantic fleet has been expanding rapidly since 1961 under a substantial federal subsidy program. CHRISTY & SCOTT 124-25. In February 1966 the Canadian Atlantic Offshore Fishing Vessels Conference was held in Montreal, under the auspices of the Federal-Provincial Atlantic Fisheries Committee, to consider technical problems associated with these developments in the Canadian fishing industry.

[72] The United States is the world's largest importer of fishery products. In 1964 U.S. fishery imports were valued at $477,988,000. FAO, 1964 FISHERY STATISTICS (1964).

[73] In 1964 the total Canadian catch exceeded $250 million in value, and more than two-thirds of this ($184,071,000) went into exports. This makes Canada the second greatest exporter of fishery products in the world. FAO, 1964 FISHERY STATISTICS (1964); *The Success of Canada's Quality Control Policy*, 4 FISHING NEWS INT'L, No. 4, 32 (1965). At the present rate of increase Canadian fishery exports in 1966 will have doubled in value since 1960. Canadian imports in 1964 were valued at $20,454,000.

[74] Japan is the world's greatest exporter of fishery products. It has been estimated that between 1954 and 1956, 73% of Japan's total protein intake was derived from fish, and yet Japanese fishery exports in 1959 accounted for 14% of all Japanese exports in that year. CHRISTY & SCOTT 115. The value of Japanese fishery exports in 1964 was reported to be $247,862,000, compared with $69,861,000 of imports. FAO, 1964 FISHERY STATISTICS (1964). But Japan is also the world's biggest consumer of fish, and consumption is rising steadily. As domestic supply levels off, Japan is becoming one of the world's leading importers of fishery products. In 1966 import volume had jumped to U.S. $160 million.

Soviet catch is consumed domestically.[75]

But more significant than the different roles of the fishing industry in the national economy of the four North Pacific States are the complementary roles that the four national industries can play in the region's development and trade. The demand for fishery products is relatively inelastic in Canada and the United States, but North Pacific fishery products could play an increasing role in the export trade with other regions.[76] Indeed the entire North Pacific basin is certain to become an economic unit of the first importance within a few decades, especially if Communist China enters the international economy on a significant scale. The mixing of legal systems in the North Pacific may contribute new solutions to problems created by increasing international cooperation and trade in that region. The inhibitive effects of antagonistic ideologies seem to have diminished in recent years[77] and

[75] The value of Russian fishery imports in 1964 was reported to be as low as $27,794,000. FAO, 1964 FISHERY STATISTICS (1964). It has been estimated that the USSR exported only 99,000 metric tons worth U.S. $44 million. 28 COM. FISHERIES REV., No. 4, 49 (1966). In a large-scale effort to boost protein intake in the Soviet Union, high priority has been given to fisheries on the understanding that the returns to capital and labor in fisheries far exceed those in animal husbandry. A Russian expert has calculated, for example, that the production of one head of beef requires twenty man-days, while the production of an equivalent amount of protein from fish would take only five man-days. CHRISTY & SCOTT 40-41, 122-23.

[76] With modern advances in food technology, it seems that nonperishable fishery products are capable of becoming a significant commodity in international trade. The newer methods of preservation, such as quick freezing and irradiation, and not-so-new methods such as canning, will compete increasingly with fresh fish and fish cured by the older methods of drying, salting, smoking, pickling and fermenting. Many questions remain to be tested: What impact will the "surplus" processed fish of the "have" fishing states make on low-income Asian and African markets that tend to favor fresh and cured fish? What is the real potentiality of fish protein concentrate (FPC) in the protein-hungry countries of the world? Can the Japanese model of overseas joint fishing ventures be copied by enterprising firms and government agencies in other countries? What are the limits of cooperation and competition between the planning agencies of socialist economies and the entrepreneurs of capitalist economies?

In very high income economies, such as the American and Canadian, where alternative protein foods are abundant and demand for fish is inelastic, consumer interest in fish lies in the fact that it adds to the variety of fare. Demand for fish may eventually take this form in Japan with its relatively high and rising income, despite its tradition as a great fish-eating country. In the Soviet socialist economy today demand for fish is kept at a relatively high level by setting the price at about half that of meat. When projecting demand for fish, it should be remembered that the sea provides a very wide variety of specific kinds of products and that these products can be put to more than one use. In the United States the trend is toward fish use for industrial purposes—for reduction to fish meal and oil—and increasing dependence on imports to satisfy the demand for food fish.

In 1948, when the FAO began compiling fishery statistics, only 20% of the total reported catch went into international trade; in 1958 the proportion had risen to 28%; and in 1964 it had reached 41%. The 1964 figures were based on the catches reported by 145 countries, which represent an estimated 88% of the actual world catch. On the basis of the average value for the 1957-59 period, international trade in the fishery products of these 145 reporting countries in 1964 represented an increase of 129%.

[77] Apparently the Soviet Union still complains that American and Canadian im-

a healthier kind of rivalry, albeit ideologically inspired, might prove to be a stimulant to regional development and trade. With a long history of successes and some failures, the Northeast Pacific, if not the entire Pacific basin, seems to be a suitable arena for experiment and innovation.

The policies of the four North Pacific States on territorial and fishery limits have differed somewhat in the past, but it is believed that their present policies on the development of international fishery authority are no longer irreconcilable. The differences in their claims to territorial and exclusive fishing limits[78] should not be exaggerated. More significantly, the Soviet Union, as a fishing State, has proved to be cooperative in schemes of international cooperation,[79] and there is now some evidence that the traditional Japanese policy of reluctance and skepticism regarding restrictive conservation measures is undergoing serious re-evaluation both by the fishing industry and the gov-

---

perialists, through the imposition of the abstention provisions in the International Convention for the High Seas Fisheries of the North Pacific Ocean, May 9, 1952 [1953] 4 U.S.T. & O.I.A. 380, T.I.A.S. No. 2786, have forced Japan to exploit "Russian" stocks of salmon in the Northwest Pacific. But this complaint, though colored by ideological references, could have been made by any state in Russia's position.

[78] The Soviet Union has long claimed a 12-mile territorial sea. Canada now claims 12 miles for fishing but retains the traditional 3-mile territorial limit. The United States now claims a 9-mile zone contiguous to its territorial sea which it still defines within the traditional 3-mile limit. Japan has long supported a 3-mile territorial sea and has attacked claims to extensive fishing limits. This is consistent with her interests as a distant fishing state . It seems now that this policy is in the process of modification. In the 1965 arrangement with South Korea, Japan promised to respect a 12-mile fishing limit around the Korean coast and established several exclusive fishing zones vis-à-vis Korea, such as that around the Japanese island of Tsushima. The Japanese government insisted, however, that it did not at present intend to establish 12-mile fishing limits along its entire coast; that the zones excluding Korean fishermen do not affect other countries; that unilaterally established 12-mile limits do not bind Japan; that the abortive attempts at Geneva in 1958 and 1960 to establish such limits universally are not declaratory of existing law; and that consensual limits apply only to contracting parties. 27 COM. FISHERIES REV., No. 12, 64-65 (1965). At the time of this writing Japan is sponsoring full-scale investigations with a view to reconsidering its position on territorial and exclusive fishing limits.

[79] The Soviet Union is a member of a commission for investigating the resources of the West Pacific (along with the People's Republics of China, Korea, Viet Nam and Mongolia); the Japanese-Soviet Fisheries Commission in the Northwest Pacific; of the North Pacific Fur Seal Commission; the International Commission for the Northwest Atlantic Fisheries; of the Northeast Atlantic Fisheries Commission; the International Whaling Commission; and is party to several other intergovernmental fishery arrangements. Mikhailov, *International Law and the Regulation of Fisheries and Other Maritime Industries in the Pacific,* 1960 SOVIET YEARBOOK INT'L L. 189. Russian scientists have participated fully in the international flow of data and ideas. Armstrong, *supra* note 70, 175-77. In July 1965 Soviet king crab biologists visited American fishing vessels and an exploratory vessel of the U.S. Bureau of Commercial Fisheries to observe and participate in daily sampling work. 27 COM. FISHERIES REV., No. 10, 21 (1965). American fishery experts praise the Russians for their recent good record in international cooperation. *See* Chapman, *supra* note 71, at 402.

ernment of Japan.[80] In some ways the least successful of the current subregional schemes of fishery authority in the North Pacific, the Soviet-Japanese Fisheries Commission, might be strengthened if a regional perspective could be adopted.[81] The present diplomatic agonies shared by Canada, Japan and the United States over the renegotiation of the International North Pacific Fisheries Convention, and especially over certain basic features such as the abstention principle, would certainly become more meaningful, if the Soviet Union could be admitted to the process of agonizing reappraisal. Admittedly, there are advantages in continuing the present system of short-term, bilateral agreements on the allocation of resources such as the king crab off Alaska,[82] both for the United States and the noncoastal states.

[80] Because of Japan's global fishing interests, Japanese scientists have cooperated, either as members or observers, with most of the world's regional and subregional schemes of authority, and have been particularly helpful in contributing to the fund of scientific knowledge of the seas. The political pressure of the powerful fishing and whaling interests in Japan has traditionally forced the Japanese government to take a negative attitude towards restrictive conservation measures. But at recent meetings sponsored by the Japan Fishery Resource Conservation Association several Japanese scientists expressed the view that the Japanese government's present policy on distant-water fisheries could not cope with changes in these fisheries which developed rapidly after World War II and have subsequently undergone tremendous structural changes. They stressed the need to re-examine and clarify policies for these fisheries from a fresh and different point of view, and indicated that these views were shared by some members of the government and by some sections of the fishing industry. 28 COM. FISHERIES REV., No. 1, 86 (1966). In January 1966, after consultation with the tuna industry, the Japanese government released a report entitled *Assessment of the Current Tuna Fishery and Direction of Counter-measures.* It pointed out that movements were under way to set up international regulations over tuna fisheries in the East Pacific and Atlantic Oceans, based on scientific research, and anticipated that regulations might be extended to other areas. In the expectation that a worldwide increase in fishing intensity will continue unless international restrictions are imposed to manage the resources, the report stated that "Japan should positively assume the position of leadership in the movements aimed at international management of the resources." *Id.* No. 4, at 61 (1966). On its face, this report seems to signal an important change in Japanese fishery policy both inside and outside the North Pacific basin.

[81] On the practices and shortcomings of this commission, see ODA, INTERNATIONAL CONTROL OF SEA RESOURCES 72-76, (1963); *see also* JOHNSTON 391-96. Japan and the Soviet Union are currently renegotiating the Northwest Pacific Fisheries Convention of 1956. The chief issues are the division of the salmon catch and the status of the king crab fishery in the Northwest Pacific. Some progress towards joint conservation policy might be expected as a result of the Soviet-Japanese Agreement for Scientific and Technical Cooperation in Fisheries signed in 1966. 28 COM. FISHERIES REV., No. 9, 36 (1966). But the Soviet Union purports to be concerned about South Korea, whose expanding fishing fleet is extending its activities into the convention waters. 29 COM. FISHERIES REV., No. 3, 13-14 (1967). It should be noted, however, that the "newcomer problem" posed by South Korean expansion seems to come within the scope of the recently created Japan-ROK Joint Fisheries Commission which is to undertake scientific surveys of fishery resources in "sea areas of common interest." Oda, *The Normalization of Relations between Japan and the Republic of Korea,* 61 AMER. J. INT'L LAW 35, 53 (1967).

[82] On Dec. 14, 1964, the Soviet Union agreed to keep Russian fishermen out of six areas off Kodiak where American crab fishermen had long operated. This agreement expires at the end of 1967. On Feb. 5, 1965, the Soviet Union recognized the king crab as a creature of the Continental Shelf over which the coastal state has a

But a large-scale regional scheme of authority covering the North Pacific operating under world community prescriptions to establish a balance between the special interest of the coastal state and the general interest of noncoastal regional and extraregional users of the region's resources should be adopted. The adoption of a regional point of view by all four States, over the same bargaining table, would produce new lines of thought helpful to the administrators of the subregional schemes as well as to those involved in national economic planning.

B. Some Problems of Regional Planning

The proposal for a regional scheme of authority shared by the four North Pacific States suggests a variety of problems. In this paper it is possible only to comment on a few of the more obvious problems confronting the policy-makers on the diplomatic level and to suggest the limits within which solutions might be found for these problems. More difficult decisions will have to be taken after expert feasibility studies have been made from scientific, economic, technological, and administrative points of view.

1. Scope of Authority. For scientific and administrative reasons, it seems best to define the scope of an area-based scheme of authority for the whole North Pacific region according to the maximum physical and ecological limits of the resources under the jurisdiction of the existing stock-based and subregional schemes. By this criterion, if the Northwest is to be included, the scheme would assume authority over a vast area stretching from the North American coast in the east to the Sea of Japan in the west, and from the Bering Strait[83] in the north as far south as the 30th parallel of north latitude.[84] It should be noted

sovereign right and agreed to limit its catch to 118,600 cases a year in 1965 and 1966. This agreement was extended for two more years on Feb. 13, 1967, with the Soviet catch limit reduced to 100,000 cases a year for 1967 and 1968. Japan has not yet adopted the Geneva Convention on the Continental Shelf, but on Nov. 25, 1964, she agreed with the United States that the Japanese crab catch off Alaska should be limited to 185,000 cases a year in 1965 and 1966. In November 1966 this king crab agreement was renewed for two more years and the Japanese catch limit was reduced to 163,000 cases for 1967 and 1968.

[83] Recent Russian investigations suggest that the wealth of the Bering Sea is much greater than previously supposed. 5 FISHING NEWS INT'L, No. 2, 80 (1966).

[84] The Japan-Soviet Convention for the Northwest Pacific Fisheries covers the whole of the Northwest Pacific waters, including the Sea of Japan, and the Sea of Okhotsk and the Bering Sea, but excludes territorial waters. In 1962 Japan and the Soviet Union agreed to establish two areas. Area A, representing the original treaty waters, included the area to the north of lat. 45°N. Still excluded are the Russian coastal and fresh water salmon fisheries which have a close ecological connection with the high seas salmon fishery covered by the convention.

The fur seal arrangements in the North Pacific since 1911 have prohibited pelagic

that this recommended area lies further south than the area designated as North Pacific in the FAO Yearbook of Fishery Statistics;[85] that it would include part of the territorial waters in the region;[86] and that the suggested southernmost limit is chosen rather arbitrarily to coincide with the southernmost limit of the area within which pelagic sealing is prohibited by agreement of the four North Pacific fishing States. Whether this area is sufficiently extensive as a conservation region—comparable with the two conservation regions in the North Atlantic—can be judged only after continued scientific investigation of the region.[87]

It can be argued that diplomatic decision-makers confronted with the task of determining the scope of the regional scheme are likely to be more influenced by nonscientific factors. It may be only a matter of time before the expanding fleets of developing "have-not" countries, such as South Korea, Taiwan, and perhaps Communist China, extend their activities into the most economically attractive fishing grounds within the scheme's jurisdiction.[88] To this the best answer seems to be that it rests upon the member states of the regional scheme to make the benefits of cooperation with the regional scheme so attractive that participation in regional and subregional conservation programs will

---

sealing absolutely in an extensive area north of the 30th parallel of north latitude of the Pacific Ocean, including the Seas of Bering, Okhotsk and Japan (but apparently excluding the Sea of Kamchatka since 1957).

[85] *See* note 66 *supra*. The recommended area overlaps the regions designated by the FAO as western-central and eastern-central.

[86] The Japanese-Soviet Convention and the International Convention for the High Seas Fisheries of the North Pacific Ocean expressly exclude territorial waters, whereas the International Pacific Halibut Commission and the International Pacific Salmon Fisheries Commission are expressly authorized to exercise conservation authority over the species in territorial as well as high seas areas.

[87] Since the fur seal and salmon form a predator-prey relationship in the North Pacific, it is important to take note of current investigations into the distribution of North Pacific salmon stocks of both Asian and North American origin, under the auspices of the International North Pacific Fisheries Commission. It is relevant, for example, that immature Bristol Bay sockeye salmon have been shown to migrate as far west as long. 173°E., beyond the Aleutian chain of islands, and long. 170°E., north of the Commander (Komandorskie) Islands in the Bering Sea. Maturing Kamchatka sockeye salmon have been tagged as far east as long. 165°E., and maturing Bristol Bay sockeye as far west as long. 167°E. Cleaver, *Origins of High Seas Sockeye Salmon*, in 63 FISHERY BULL. OF U.S. FISH AND WILD LIFE SERV. 2, 445, 473-74 (1964).

[88] The expanding fleets of Korea and Taiwan are already providing the Japanese tuna catchers with serious competition in the Sea of Japan and it is likely that they will be required to agree on common conservation measures. See note 81 *supra*. In December 1965 the fishery enterprises of Japan and Communist China extended their private agreement for two years. By this nongovernmental agreement a limited number of Japanese fishermen are allowed to fish in six designated zones near the Chinese mainland, and provision is made for the tightening of regulations on mesh sizes, minimum fish sizes, and catch composition. 28 COM. FISHERIES REV. No. 3, 60 (1966).

be regarded as desirable by newcomers. With rapid progress in the detection of fish and rather less rapid progress in long-range forecasting of changes in the ocean, it seems likely that the availability of fishery intelligence services will provide an important inducement to developing fishing industries to conform with organized conservation practices.[89] In any event, it might be anticipated that in the gradual evolution of a North Pacific scheme of authority it will become commonly desirable to extend the scheme's jurisdiction to include waters further to the west and those states that exploit the stocks in those areas.

Because of the predator-prey relationship between the fur seal and the North Pacific salmon, it is obviously essential that the activities of all four parties to the Interim Convention on the Conservation of the North Pacific Fur Seals and of the North Pacific Fur Seal Commission should be brought within the split-level system of authorities envisaged for the region.[90] Moreover, just as it was regarded as vital to protect the existing conservation programs over the salmon and halibut stocks shared by Canada and the United States, when the International Convention for the High Seas Fisheries of the North Pacific Ocean was negotiated in 1953,[91] it would be essential to form a mutually suitable relationship between the projected regional scheme and the existing subregional salmon and halibut commissions. With a broader perspective, and the enthusiastic participation of the Soviet Union, there is surely a reasonable expectation that the range of possible solutions to this difficult problem would be extended.

2. Identification of Interest. It is supposed that diplomatic negotiators of an area-based scheme of fishery authority for the entire North Pacific region would find the advice of the administrators of existing

[89] The regional scheme, with direct access to all new scientific data acquired within its jurisdiction, might withhold certain data of direct and immediate commercial significance from uncooperative newcomers, so as to give a distinct advantage in locating the best fishing grounds to the cooperative fleets. The regional scheme's policing procedures would, in any event, have to take cognizance of unfair practices by uncooperative states which might include "spying" on the movements of better-informed vessels of cooperative states. The prospect of disputes over the applicability of policing procedures to nonparty states would, hopefully, tend to encourage the latter to participate in, or cooperate with, the regional scheme. Once the scientific data have ceased to have an immediate commercial value for uncooperative fleets, they should of course be made available to the scientific world.

[90] *See* note 87 *supra.*

[91] This vital interest in preserving the salmon and halibut conservation programs led to the controversial abstention provisions, and it is the same interest which has caused the most acute problems during the current efforts to renegotiate the treaty at Japan's request. *See* JOHNSTON 275-82.

conservation programs invaluable in helping them to establish the framework for tolerable relationships between the existing subregional schemes and the projected regional scheme. Within a split-level system of fishery authority the managers of any one subregional scheme would have less reason than at present to defend the "interests" of their own species against those of others,[92] and presumably those sections of a national fishing industry associated with a particular species or area of waters can be trusted to represent themselves either before their own government or, in collaboration with their counterparts in other interested states, before the institutions of the regional scheme itself. The latter alternative might prove to be more effective if the intergovernmental scheme is functioning as a genuine regional unit, especially since managerial and arbitral, as well as diplomatic, compromises might be obtainable on this regional level. Here, as in other situations, nongovernmental claimants would remain free to calculate the relative effectiveness of "administrative," "equitable," and "political" arguments advanced before managerial, arbitral and diplomatic decision-makers.

The chief responsibility of the regional scheme will be to find an economical and equitable balance between the general interest of the region and the special interests of the four (or more) parties. It should not be difficult for Canada and the United States to accept special interests of Japan and the Soviet Union in western areas of the region, since the North American fleets do not participate in distant fishing there, and have expressed no aspiration to do so. The Soviet Union has not contested Canadian and American special interests within 12 miles of their coasts and Japan is now expected to soften her opposition at the bargaining table.[93] Hopefully, some of the difficulties encountered by Japan and the Soviet Union in their annual negotiations over national quotas would be eased by providing for a regional per-

[92] Presumably, scientific-administrative loyalties to a particular species or area could be redirected more easily if they were allotted a more specific role in a general scheme for the most rational use of the resources of the entire region.

[93] In February 1967 the Soviet Union accepted the recently claimed American nine-mile fishing zone continguous to the territorial sea of the United States and in return was granted the right to conduct fishing and loading operations at several points within the zone off Alaska, Washington and Oregon. At the time of this writing Japanese negotiators are claiming the privileges of a state whose fishermen have conducted "traditional fishing" within the zone. *See* Bowkett, *U.S. Steps Up Fishing Rights Vigil Off Alaska,* The Christian Science Monitor, May 11, 1967, p. 1, col. 1-5, p. 17 col. 1-8. Despite their rejection of Japanese claims of "historic" privilege applied to Alaska-bound salmon in Bristol Bay, Americans have themselves frequently invoked privilege based on traditional fishing in their disputes with Canada. American interception of Canadian-bound salmon is a current issue between

spective on the potentialities and relative importance of the resources which they share.

3. Objectives of Fishery Use. The unwisdom of spelling out conservation objectives in world communal prescriptions has already been suggested, and the difficult problems involved in the formulation of conservation objectives for the North Pacific are dealt with in another paper in this symposium.[94] The objectives set out in existing North Pacific schemes have been formulated in biological terms,[95] and the economic shortcomings of these programs are well documented.[96] The task of formulating conservation objectives in socio-economic terms, on the other hand, would be more difficult,[97] and it is not easy to see how they could be made workable in a region such as the North Pacific.[98] It might be suggested, however, that diplomatic policy-

---

the two North American states, with Canada objecting to the present 50-50 quota arrangement for the Fraser River salmon fishery and questioning the adequacy of the provisions of the 1956 Pink Salmon Protocol which brings that species within the responsibility of the bilateral International Pacific Salmon Fisheries Commission. 5 FISHING NEWS INT'L, No. 7, at 60 (1966); *Id.* No. 6, at 50 (1966).

[94] *See generally,* Burke, *supra* note 48, at 145, where the author treats the objectives of fishery commissions, including those of the North Pacific.

[95] *See* the *Preamble* to the 1953 International Convention for the High Seas Fisheries of the North Pacific Ocean May 9, 1952 [1953] 4 U.S.T. & O.I.A. 380, T.I.A.S. No. 2786; *Preamble* to and art. 2(1)(a) of the 1957 Interim Convention on the Conservation of North Pacific Fur Seals Feb. 9, 1957 8 U.S.T. & O.I.A. 2283, T.I.A.S. No. 3948; and art. 3(2) of the 1937 Northern Pacific Halibut Fishery Convention L.N.T.S. 4190, vol. CLXXXI, p. 209.

[96] *See* note 45 *supra.* For a recent criticism, see Crutchfield, *Economic Objectives of Fishery Management,* in THE FISHERIES: PROBLEMS IN RESOURCE MANAGEMENT 43-63 (Crutchfield ed. 1965). Crutchfield regards conservation as "essentially an investment decision." He asks, *id.* at 55:

> Is it wiser to take some now and "invest" in the productive capacity of the fisheries stock itself? ... What is confusing in the case of a fish population or a forest is that the inventory of final products and the factory are one and the same thing; the problem is to find an optimal balance between a fishery stock viewed as a source of consumer goods and the same fishery stock viewed as a piece of productive equipment. In either usage it is essential that the largest *net* benefit from both investment and consumption be obtained.

See also JOHNSTON 49-55, 67-68, 380-84.

[97] For example, it may be considered necessary to take account of "opportunity cost." Crutchfield, *supra* note 96 at 55 states:

> Society's interest lies in conserving not only natural resources but the labor and capital necessary to utilize them. If fishing effort is pushed beyond the point where the margin of receipts over costs is greatest, more fish are produced, but only by giving up other products, the value of which is greater than the value of the additional fish. ...The vital problem is how to achieve an optimal balance in the use of *all* resources, human and physical.

[98] The following appears in CHRISTY & SCOTT at 74:

> [I]n cases where the fishermen from different nations are fishing for ecologically related species, it becomes difficult to define a maximum net economic revenue for the region's fisheries. In some ways this is a familiar problem in cases where the multiple use of a common resource base is attempted. But in other ways the problem is unique, because instead of dealing with a single

makers in the four North Pacific States should envisage the future uses of the region's fishery resources as part of a larger effort to develop intraregional and interregional trade. There is little doubt that current rapid advances in fishery and food technology will soon make the living resources of the sea an important commodity in the world market, and it is certain that the four North Pacific States can take a leading part in this development. If clearer perceptions of a North Pacific trade pattern can be acquired, fishery conservation objectives in the region might be expected to come into focus.[99]

At the same time, it is hoped that all four States are capable of accepting certain responsibilities for assisting developing countries, if not in the spirit of altruism, then with the intelligence of enlightened self-interest. The advantages which all four North Pacific States enjoy may be best secured by sharing them with less favored nations through trade privileges and technical assistance.[100]

4. Dispute-settling Procedures. The drafters of the Convention on Fishing and Conservation of the Living Resources of the High Seas took a limited view of the kinds of fishery disputes for which world community settlement procedures should be established. It seems that they have limited themselves to disputes over the exercise of national or international authority for the implementation of stock-based conservation programs, and that they have failed to consider the range of disputes that might arise through the management of area-based programs.[101] Certainly, they have expressly addressed themselves only

uniform wage-price structure, it involves a variety of wage-price structures. Different prices, or values, may be placed upon the same commodity and different costs applied to the same input. These differences may not be difficult to reconcile where the economies involved are similar, but they may be almost insuperable where such diverse economies as the Soviet, the Japanese, and those of the West may be focusing their efforts on the same species or on different but related species in the same region.

But the differences between the Soviet fishing industry and the private enterprise fishing industries of the other three states may not be as great as usually supposed. Armstrong, *supra* note 70, at 177-83.

[99] It is common for fish to be a part of several transnational transactions before it reaches the consumer's plate. Off West Africa some 90 Japanese vessels catch tuna in the Equatorial Current. The tuna are transferred to West German freighters, brought to Puerto Rico for canning, sailed to the United States, tracked for instance to Cape Cod, Mass., where they sell cheaper than the tuna caught 5 miles away. Hahn, *The Adventure of Oceanography,* 5 FISHING NEWS INT'L, No. 4, at 24 (1966).

[100] It has been argued elsewhere that the United States should start applying its technology to fisheries not for its own sake but for the sake of aiding developing countries. *See e.g., id.* at 25.

[101] In criticizing the Convention, Christy and Scott state that "it envisages treaties based on stocks of fish rather than on regions, thus giving little encouragement to arrangements that might *change* the dominant stock of a certain region." CHRISTY & SCOTT 173-74.

to claims contesting the need for conservation measures in general, to the scientific validity of specific measures, and to claims alleging that the measures constitute unfair discrimination.

These three types of disputes might be regarded as examples of disputes over conservation authority that lend themselves to settlement by arbitral decision-makers. Almost every conceivable fishery dispute will be regional in origin, and it seems desirable, on principle, that in the initial phase of settlement the variable factors peculiar to the use of the region's resources should be brought into light to clarify regional fishery policy. If regional dispute-settling procedures and policy clarifications are not sufficiently creative to settle the dispute amicably, then final recourse will have to be taken to decision-makers on the world community level. But it is unfortunate to leave the impression in codified law that the only "legal" recourse is compulsory submission to arbitral decision-makers whose tendency will be to limit the dispute to arbitrable issues of conservation authority judged exclusively by biological criteria. Within the framework of a regional scheme the Commission can be authorized to adopt conservation measures subject to the right of member states to object within prescribed time limits.[102] When the onus thus lies on the dissenting state to challenge the scheme's measures before it develops into a more damaging kind of dispute the various aspects of regional policy can be drawn out more easily than in the course of adversary hearings before an arbitrator, and it is perhaps easier to devise managerial techniques to soften the impact of the adopted measures on the dissenting state.

It is believed, therefore, that a split-level system of fishery authority would institute more rational and more equitable procedures in the process of decision-making applied to the fisheries of the North Pacific.

[102] Carroz & Roche, *supra* note 48, at 686-90.